



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,088	03/06/2002	Jukka Jakara	003277-031	6115

21839 7590 02/15/2005

BURNS DOANE SWECKER & MATHIS L L P  
POST OFFICE BOX 1404  
ALEXANDRIA, VA 22313-1404

EXAMINER
----------

ALVO, MARC S

ART UNIT	PAPER NUMBER
----------	--------------

1731

DATE MAILED: 02/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/018,088	Applicant(s) JAKARA ET AL	
	Examiner Steve Alvo	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 abd 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6, 7 and 9 are rejected under 35 U.S.C. 103 (a) as being unpatentable over LINSTEN et al with or without the Admitted Prior Art (specification, page 1, lines 11-14).

LINSTEN et al teaches bleaching mechanical pulp (column 5, lines 3-19) with 1 kg/ton of pulp, preferably 3 kg/ton of pulp of peracetic acid (column 2, lines 49-55) and hydrogen peroxide (column 2, lines 40-48), at a pulp consistency of 2.5 to 40% (column 5, lines 56-59). It is noted that LINSTEN et al teaches that the process could be carried out in an optional position in the bleach process. This would include before and/or after other bleach stages, e.g. the peroxide stage of columns 5 and 6. The process of LINSTEN appears to be the same as the instant process, e.g. using the same bleaching agent, e.g. peracetic acid; under the same conditions, e.g. 1 kg/ton concentration on the same material, e.g. mechanical pulp. Obviously the results of improved opacity would have been the same. The mere recitation of a newly discovered function, e.g. improving the consistency, considered as inherently possessed by the prior art process, does not cause claims drawn thereto to distinguish over the prior art. See, In re Best, 195 USPQ 430, 433(CCPA 1977). Hence the prior art references use the same steps of e.g. using the same bleaching agent, under the same conditions, on the same material. Obviously the result of improved opacity would have been the same. If this is not obvious then the ADMITTED PRIOR ART teaches the opacity decreases when the brightness increases. Thus it is known that there is a trade-off between opacity and brightness. When high amounts of

peracetic acid are used the brightness increases and the opacity decreases. It would have been obvious to the artisan that when the low amounts of peracetic acid taught by LINSTEN et al are used that the brightness would decrease and that the opacity would increase, in comparison to when larger amounts of peracetic acid are used, as the ADMITTED PRIOR ART teaches that they are inversely proportional.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over LINSTEN et al as applied to claim 1 above, and further in view of CHANG et al.

CHANG et al teaches that peracetic acid can be formed in situ by mixing Caro's acid to acetic acid to form a mixture of Caro's and peracetic acid. CHANG et al teaches that such mixed peracetic acid solutions have improved delignification and brightening. It would have been obvious to form the peracetic acid of LINSTEN et al in situ, in the manner taught by CHANG et al, to obtain the improved delignification and brightening taught by CHANG et al.

The argument that there is only a general disclosure in LINSTEN et al, that the process can be used with mechanical pulps is not convincing as LINSTEN et al teaches in column 5, lines 3-15:

“The term lignocellulose-containing pulp refers to pulps containing fibres that have been separated by chemical or mechanical treatment, or recycled fibres. The fibres may be of hardwood or softwood. The term chemical pulp relates to pulps digested according to the sulphate, sulphite, soda or organo-solv process. The term mechanical pulp refers to pulp produced by refining chips in a disc refiner (refiner mechanical pulp) or by grinding logs in a grinder (groundwood pulp). The term lignocellulose-containing pulp also relates to pulps produced by modifications or combinations of the above-mentioned methods or processes.

Examples of such pulps are thermomechanical, chemimechanical and chemi-thermomechanical pulps.” (Emphasis added).

Not only does LINSTEN et al state that mechanical pulp can be used, the reference gives specific examples of the types of mechanical pulp that can be used, e.g. refined pulp, groundwood, TMP, CMP and CTMP. Clearly the process of LINSTEN et al could be performed on mechanical pulp.

The argument that LINSTEN et al does not take place “in connection with” bleaching is not convincing as such a term can read on pre-bleaching or delignification just prior to bleaching. However, LINSTEN et al teaches that the peracetic acid stage can be performed at any stage in the bleaching sequence, including after an oxygen stage (column 5, lines 24-29). Oxygen is a well known bleaching agent. LINSTEN et al also teaches that a good delignifying and bleaching effect is obtained even before the chlorine-free bleaching (paragraph bridging columns 1 and 2). The stage prior to the chlorine-free bleaching is the peracetic stage. Clearly a peracetic acid treatment after an oxygen stage and before a peroxide bleaching stage would be “in connection with” the chlorine-free bleaching.

Applicant has further argued that LINSTEN et al does not improve the opacity. The term “improve opacity” is a relative term which does not define over the opacity of LINSTEN et al. For example, the term opacity can read on increasing (making the paper more opaque) the opacity or decreasing (making the paper easier to see through) the opacity. The desired opacity would depend upon the end use of the paper. For example, notebook and book paper is more desirous to have a high opacity. Tracing paper would be desirable to have a lower opacity. Thus the term “to improve opacity” reads on both increases and decreases of the opacity.

Besides the discovery of a new inherent property can not be the basis of patentability in a process that is obvious over the art. The argument with respect to the carbohydrate degradation is not convincing as a step can be obvious even if done for a different purpose, *In re Heck*, 216 USPQ 1038, *In re Kronig*, 190 USPQ 425, *In re Gershon*, 152 USPQ 602. The mere recitation of a newly discovered function, reasonably considered possessed by the prior art process, does not cause claims drawn thereto to distinguish over the prior art. *In re Best*, 195 USPQ 430. It is well settled that it is not necessary for a finding of obviousness under 35 U.S.C. 103 that the prior art teaches or suggests practicing a claimed invention for the purpose described by applicant. *In re Kemps*, 40 USPQ2d 1309, *In re Dillon*, 16 USPQ2d 1897. In the instant case the treating of pulp with peracetic acid in "connection with" a bleaching process would have been obvious from the teachings of LINSTEN et al. Applicant is treating the same material (mechanical pulp) with the same chemical (peracetic acid) in the same environment (in connection with a bleaching stage. The results, e.g. improved opacity, would inherently be the same.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

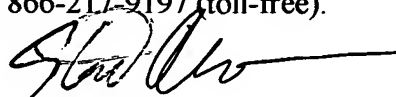
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Alvo whose telephone number is 571-272-1185. The examiner can normally be reached on 5:45 AM - 2:15 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steve Alvo  
Primary Examiner  
Art Unit 1731